

Delaware County Sustainability Commission

May 21, 2021



- *This meeting is being recorded and live-streamed.*
- *The recording and minutes will be posted to the Sustainability Commission website.*
- *You can participate in the live meeting by sending comments or questions to*
GoGreenDelco@co.delaware.pa.us

Sustainability Commission Charge

- To create recommendations regarding best environmental and energy practices in the areas of buildings, facilities and operations; fuels, vehicles, and transportation; food; responsible purchasing; housing; energy sources; air quality; stormwater management; natural and cultural resource protection, wildlife preservation; and climate change
- To identify and assess environmental and energy policies the County has adopted and provide recommendations to promote and educate about the County's environmental and energy initiatives.
- To identify and provide recommendations regarding voluntary actions, projects, and programs for municipalities, businesses, non-profits, and other partners to implement County environmental and energy policies.
- To create, review and provide ongoing input into a Delaware County Sustainability Action Plan.
- To recommend Triple Bottom Line-related actions, projects, and programs to Council for implementation.



Agenda

- Welcome and Roll Call
- Approval of April Meeting Minutes
- Chief Sustainability Officer Update: Francine Locke
- Presentation - Environmental Injustice in Chester: Delaware County's use of Incineration: Mike Ewall
- Subcommittee updates
- Presentation – Provident Energy: Mike Lang
- FCNA Energy Audit Update – KCBA: Kaustubh Chabukswar
- Presentation – Solarize Delco: Peter Puglionesi
- New Business/Announcements
- Adjourn



Public Comment: GoGreenDelco@co.delaware.pa.us

Approval of April Meeting Minutes



Public Comment: GoGreenDelco@co.delaware.pa.us

Chief Sustainability Officer Update

Presenter: Francine Locke



Public Comment: GoGreenDelco@co.delaware.pa.us

Focus on Departmental Sustainability Updates



Departmental Sustainability Update

Planning Department

Awarded a \$50,000 Pennsylvania Department of Community & Economic Development (DCED) matching grant to prepare a corridor study of U.S. Route 13 (Chester Pike).

The highway connects the five boroughs of Sharon Hill, Glenolden, Norwood, Prospect Park and Ridley Park.

The Plan will:

- Identify the ageing corridor's needed enhancements to the road, bus, and rail transit infrastructure;
- Complete Streets planning and design improvements to ensure pedestrian and bicycle safety and accessibility;
- Address redevelopment or adaptive reuse of vacant older buildings, to attract a diverse mix of land uses to set the stage for the corridor's economic recovery at the end of the COVID-19 pandemic.



Departmental Sustainability Update

Planning Department

Heritage Tourism Plan

- Planning Department Preservation staff-initiated work, in partnership with Visit Delco PA, on Phase I of the development of a Heritage Tourism Plan.
- The first part of this plan requires identification and survey of:
 - Cultural and historic resources
 - Organizations and sites within the County

Goal: To develop a Countywide program to celebrate America's 250th birthday in 2026 that is inclusive of all residents and promotes the heritage of all groups.



Departmental Sustainability Update

Planning Department

Green Space Task Force - To develop a vision, mission, and implementation steps to influence a culture of appreciation for the conservation and use of natural lands in the County.

#DelcoGreenSpace

Trails Alliance - To effectively meet the County's needs for connections, trail advocacy, and trail maintenance; The group will work collaboratively with municipalities, adjoining Counties, and the regional Circuit Trails while promoting the Countywide Primary Trail Network.



Departmental Sustainability Update

Planning Department

Return of Environment (ROE) Study

Report on the Economic Value of Green Space.

Includes an outline of the history of green space in Delaware County, the County's vision for the future, and four case studies demonstrating the economic value of green space in the County's diverse communities, using data provided through the Delaware Valley Regional Planning Commission.



Departmental Sustainability Update

Conservation District

- **Mini-Grant Reimbursement:** Issued \$500 to Darby Creek Valley Association for Stream Monitoring Program Expansion.
- **Envirothon:** Facilitated the Delaware County Virtual Competition, April 27th. Monitored State Competition at Penncrest H.S., May 11. Placed in the top 15 in State. Oral competition is ongoing.
- **MS-4 Permitting and Act 167 Stormwater Management Plan:** Held a Stormwater Management meeting with Chester County. Water Resources Authority, Chester County Facilities Management, and Delaware County Planning.
- **Tree Planting Event** at Green Bank Farm Park, in Marple Township, Watershed Specialist participated.
- **Mapped stormwater management** elements using GPS along Chester Creek Trail.



Departmental Sustainability Update

Conservation District

- **Live-Stake Workshop for Streambank Stabilization** at Brookside Park in Newtown Twp, Watershed Specialist participated. Using dormant cuttings from water loving trees and shrubs is an affordable and simple way to help stabilize eroding stream banks.
- **Conservation Planting Trailer** – Loaned and delivered to Garrett Williamson for a maintenance project of a riparian buffer.
- **Spotted Lanternfly control efforts** with Friends Groups, and Master Watershed Stewards involving the placement of Circle Traps at Glen Providence Park, Smedley Park, and Rose Tree Park.
- Coordinating with Haverford Township on a **grant application to install a Multi-Functional Buffer** on 5 different areas owned by the Township. Grant request will be between \$11,000 and \$15,000.



Departmental Sustainability Update

Parks and Recreation

June 26th opening of the Summer Festival 🎷🎵🎺🏰

- Replaced stage floor of Amphitheater at Rose Tree Park
- Restoration work performed along stream banks at Clayton Park
- Inspected receding pond at Glen Providence Park. Planning a survey to determine preservation mechanism.
- Decorative planting at Rose Tree Park.
- Mulching projects.
- Fishing Tournament planned for this weekend at Kent Park.
- Hired five new summer staff members for maintenance of parks, sound and light crews for summer concerts.



Departmental Sustainability Update

Motor Vehicle Management

- It's official! The County was awarded two (2) Alternative Fuels Incentive Grant Program (AFIG) grants from PA DEP.
 - \$112,500 for Vehicle Purchase/Retrofit Project Grant
 - 15 EVs were purchased, Chevrolet Bolts
 - \$7500 per vehicle purchased in the form of a rebate.
 - \$35,740 for Refueling Infrastructure Projects Grant to install EV Chargers.
- Vehicles were assigned to Planning, Administrative Services (Mailroom) and Pool vehicles, primarily used mostly by the Board of Assessments.
- Currently researching other EV options for county use so that we may apply for more grant money from the AFIG grant funding.



C-PACE Program — Creating a Property Assessed Clean Energy Program for Local County Businesses

Status:

- Formally adopted the C-PACE Program
- Passed Resolution by Council vote on 3/17/2021
- Drafted SEF Program Administrator Cooperation Agreement
- Drafted Statement of Levy and Lien

Next steps:

- Finalize documents
- Adopt final program guidelines
- Communicate program existence with the greater Delaware County Commercial Community
- C-PACE legislation requires public announcement of any projects that are financed. These will be posted on the Pennsylvania C-PACE website under Delaware County



Southeastern Pennsylvania Regional Power Purchase Agreement (RPPA)

Status:

- On April 7, 2021, Delaware County's Executive Director signed the RPPA Letter of Intent (LOI) that commits the County to explore the feasibility and potential for pursuing a regional power purchase agreement.
- DVRPC is the facilitator and convener for the partnership.
- LOIs were also signed by Bucks and Montgomery Counties.

Next steps:

- The RPPA Steering Committee is vetting an MOU and RFP to collectively hire an Electricity Services Consultant.
- The Consultant will assist in exploring, developing, and possibly executing a long-term strategy for electricity and renewable energy purchasing.



Current County Energy Purchasing

Provident Energy is presenting today.



Regional Streetlight Procurement Program (RSLPP)

Status:

- DVRPC's RSLPP is working with Bucks, Chester, Delaware, and Montgomery counties to convert more than 15,000 streetlights, 8,000 traffic signals and other outdoor lighting equipment to light-emitting-diode (LED) technology.
- The RSLPP is a turnkey program, and DVRPC is arranging financing for several municipalities in the RSLPP that are considering financing their projects.
- Delaware County is considering moving forward with this program for Eddystone, Trainer, and Chester City (tentatively).

Next Steps:

- Presented action item to County Council on May 5, 2021.
- Vote by Council for enactment of program on May 19, 2021.



Vehicle Electrification Plan

EVs:

- Purchased 15
- Received 4 (others are being held by dealership until infrastructure installation)
- Using short-term electricity plug outlets for charging
- Testing out travel distance and energy use

Infrastructure:

- Three fast-charging EV stations will be installed by July 2021 at:
 - Fair Acres
 - Amber Street across from the Government Center
 - Upper Darby parking lot on Wiltshire Road

Process for Installing Infrastructure:

- Contract was awarded on March 17, 2021.
- Contractor is presently obtaining permits in three townships which may take up to 45 days.
 - Middletown Township
 - Media Borough
 - Upper Darby Township
- New electric service lines/poles are required in coordination with PECO.



Facility Condition and Needs Assessment

Creating a baseline for all County-owned properties to allow for equitable distribution of future project funding.

Consultant is presenting on energy aspects today.



Capital Improvement Program (CIP)

An effort to create an open and transparent practice for Capital improvement Planning.

- FY22 Capital Budget Call initiated – “[Statement of Need](#)” form was sent to Departments.
- Departmental Capital requests received.
- CIP Steering Committee met on May 6, 2021 to review the requests and distribute to subcommittees.
- CIP Steering Committee will submit recommendations to Capital Budget Committee by July 1, 2021.
- CIP Administrative Practice sent to Department Directors for feedback.



Sustainability Commission Summer Intern

- 12 applications received.
- Human Resources will conduct preliminary phone interviews with each candidate between now and April 21.
- By April 28, HR will provide a short list and will schedule second interviews via virtual means with CSO and other interested County representatives.
- Anticipate hiring and on-boarding by end of May.



Successful 2021 Delaware County Earth Day Events

April 24, 2021

- Tree Planting and Give-Away at Catania Park in collaboration with Pennsylvania Horticultural Society, John Heinz Conservancy, Soil Conservation, and the Park Board. Community groups involved include Ridley AA and Tree Tenders from Ridley Park.

April 29, 2021

- E -Waste collection event at Rose Tree Park. The County is working the Pennsylvania Resources Council.



PADEP's Local Climate Action Program (LCAP)

Delaware County submitted an application to participate in year 3 of LCAP, which begins this August and continues through June 2022.

Decision by early July.

Description:

Local governments are matched with college students across the state and trained by a DEP contractor, ICLEI, to develop GHG inventories and climate action plans.

Via a series of live training webinars and one-on-one technical assistance, ICLEI guides the student/local government teams in creating GHG inventories and climate action plans.



Questions?

Check for Public Comment:

GoGreenDelco@co.delaware.pa.us



Environmental Injustice in Chester: Delaware County's use of Incineration: Mike Ewall

Presentation can be found here:

<http://www.chesterresidents.org/pdf/DelcoZeroWaste.pdf>



Questions?

Check for Public Comment:

GoGreenDelco@co.delaware.pa.us



Subcommittee Updates



Provident Energy: Mike Lang



Questions?

Check for Public Comment:

GoGreenDelco@co.delaware.pa.us



KCBA and Bureau Veritas
FCNA Energy Audit Update:
Kaustubh Chabukswar





BUREAU
VERITAS



THOMAS CURRAN BUILDING

ENERGY AUDIT FINDINGS

BRIEFING TO DELAWARE COUNTY SUSTAINABILITY
COMMISSION

MAY 21 2021

SUMMARY



01

THE TEAM

02

ENERGY PROJECT
APPROACH

03

ENERGY & WATER
CONSERVATION
MEASURES

04

CONCLUSION





01

INTRODUCTION

THE TEAM



*Study Management, Architectural Building Audits,
Operational/Spatial/Program Analysis, Development of Capital Upgrade Scenarios*



*Technical Conditions Analysis
of Buildings and Grounds,
Cost Estimating, Priority
Repair Plan, Maintenance
Recommendations*



*Analysis of Regional
Infrastructure: Utilities,
Parking and Roadways,
Stormwater Management*

Women-Owned Business



*Facilities Operational
Analysis of George Hill
Correctional Facility and
Delaware County
Juvenile Detention Center*

**Minority and Veteran-
Owned Business**



*Highest and Best Use
Value Reports of
Properties*

ENERGY AUDIT- SUMMARY FINDINGS



8

*Types of Energy & water saving
measured identified after assessing
32,040 SF of Thomas Curran Building*

\$83,133

*Projected initial investment for
recommended green measures*

\$28,498

*Projected first year savings from the
recommended green measures*

2.9Yr

Simple Payback



Assessment
included

- Payback Analysis
- Savings to Investment Calculation

- O&M Savings
- Utility Analysis



02

ENERGY PROJECT APPROACH

ENERGY PROJECT APPROACH



- **Phase 1**

- Energy & Green House Gases Benchmarking
- Prioritization Based of Energy Use Intensity



- **Phase 2**

- Energy Audit – Field Assessment
- Energy Audit – Technical Analysis



- **Phase 3**

- Findings Tabulation
- Development of Implementation Plan

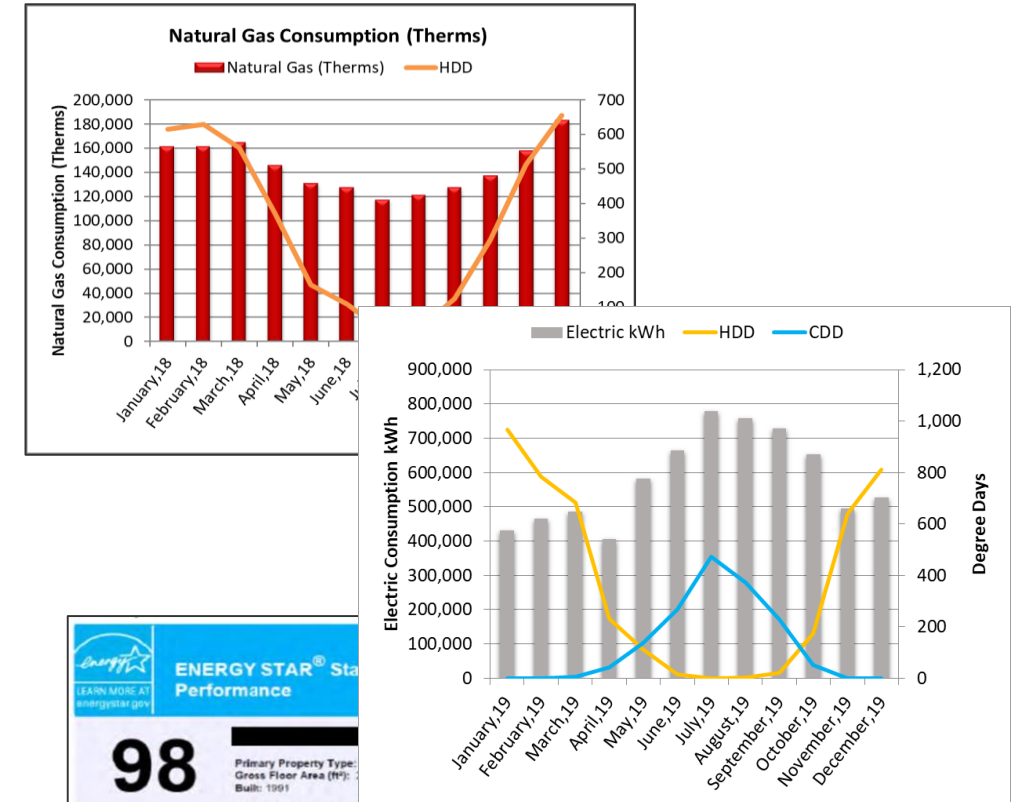


PHASE 1

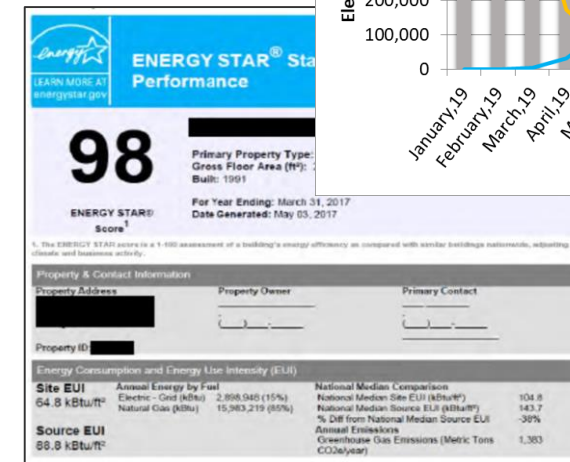
ENERGY & GREEN HOUSE GAS BENCHMARKING



- Characterize energy use for all facilities
- Prioritize facilities based on EUI benchmarking
- Perform Scope 1, 2 GHG Emission Inventory
- Document energy source (Fossil /Renewable)
- Document onsite or utility sourced energy
- Identify significant contributors to GHG emissions

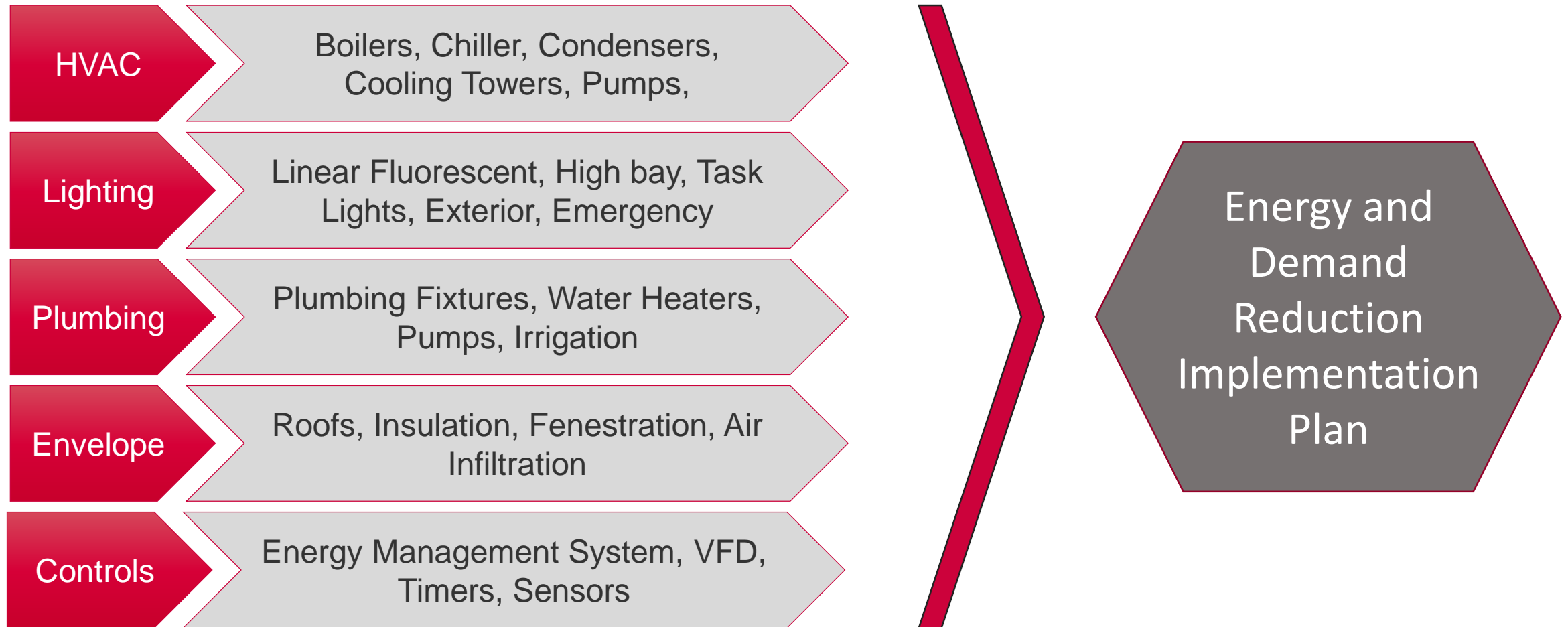


EUI: Energy Use Intensity; GHG: Green House Gas



PHASE 2

ENERGY AUDIT FIELD ASSESSMENT



PHASE 3

ENERGY AUDIT TECHNICAL ANALYSIS



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UIC	Re-Commission The Building & Its Control Systems
EAC10	Location: re-Program the VAV boxes, outside Air Intake
Enter the Total Area of The Facility	32,040 SqFt
Select the Type of Heating Fuel:	Natural Gas (Select)
Estimated Annual Heating Fuel Consumption:	45,030 Therms
Is the Property Cooled?	Yes (Select)
Estimated Annual Electrical Energy Consumed For Cooling:	184,144 kWh
Estimated Energy Savings From Re-Commissioning on Building Systems:	8% (Select)
Estimated Heating Energy Saving Post Re-Commissioning:	3,602 Therms
Estimated Cooling Energy Saving Post Re-Commissioning:	14,732 kWh
Average Heating Fuel Rate Paid By The Property:	\$2.45 \$/Therm
Average Electrical Rate Paid By The Property:	\$0.09 \$/kWh
Annual Energy Cost Savings:	\$10,162 \$
Estimated Cost For Re-Commissioning The Facility: (LBNL 2009 Report on Building Commissioning)	\$12,176 \$
Simple Payback Period:	1.20 Yrs
Type of Recommendation	Capital Cost ECM Recommendation

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UIC	Reduce HVAC Hours of Operation
EAC3	Location: Re-introduce Setback Control
No of Programmable Thermostats To Be Installed:	1 Qty.
Select Type of Programmable Thermostat Recommended: (Selection based on Type of Property)	Centrally Controlled Thermostats For Multi-Unit Property - (BMS) (Select)
<div>Heating Load Calculation</div> <div>Cooling Load Calculation</div>	
Select Type of Heating Fuel	Natural Gas (Select)
Estimated Current Annual Energy Consumption For Winter Heating	45,030 Therms
Day Time Set Back Hours	Weekdays: 0.00, Weekends: 12.00
Night Time Set Back Hours	Weekdays: 6.00, Weekends: 8.00
Hours Without Set Back	Weekdays: 18.00, Weekends: 4.00
Typical Indoor Temp	68.00 °F
Temp Set Point With Set Back During Day Time	68.00 °F
Temp Set Point With Set Back During Night Time	62.00 °F
Average Heating Set Point	66.36 °F
Savings Per Degree Set Back For Heating Season (Industry Standard, 2004)	3%
Estimated Annual Heating Energy Consumption	4,503,000 kBtu
Estimated New Annual Heating Energy Consumption	4,281,066 kBtu
Estimated Annual Heating Energy Savings	2,219 Therms
Select Type of Cooling Fuel	Electric (Default)
Estimated Current Annual Energy Consumption For Summer Cooling	184,144 kWh
Day Time Set Back Hours	Weekdays: 0.00, Weekends: 12.00
Night Time Set Back Hours	Weekdays: 6.00, Weekends: 12.00
Hours Without Set Back	Weekdays: 18.00, Weekends: 0.00
Typical Indoor Temp	74.00 °F
Temp Set Point With Set Back During Day Time	78.00 °F
Temp Set Point With Set Back During Night Time	78.00 °F
Average Cooling Set Point	75.86 °F
Savings Per Degree Set Back For Cooling Season (Industry Standard, 2004)	6%
Estimated Annual Cooling Energy Consumption	628,299 kBtu
Estimated New Annual Cooling Energy Consumption	558,289 kBtu
Estimated Annual Cooling Energy Savings	20,519 kWh
Cost Analysis	
Average Annual Cost of Heating Fuel:	\$2.45 \$/Therm
Average Annual Cost of Electricity:	\$0.09 \$/kWh
Estimated Annual Heating Cost Savings:	\$5,444 \$
Estimated Annual Cooling Cost Savings:	\$1,847 \$
Estimated Installation Cost Per Thermostats: (Includes Material, Labor & Installation Costs)	\$1,070 \$
Total Estimated Cost For All Programmable Thermostats	\$1,355 \$
Total Estimated Cost Savings From All Programmable Thermostats	\$7,291 \$
Estimated Simple Pay Back Period	0.19 Yrs
Type of Recommendation	Capital Cost ECM Recommendation

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PHASE 3

ENERGY SAVINGS SUMMARY CHART



List of Recommended Energy Conservation Measures For Thomas Curran Building

ECM #	Description of ECM	Projected Initial Investment	Estimated Annual Energy Savings		Estimated Annual Water Savings	Estimated Cost Savings	Estimated Annual O&M Savings	Total Estimated Annual Cost Savings	Simple Payback	S.I.R.	Life Cycle Savings	Expected Useful Life (EUL)
			Natural Gas	Electricity								
		\$	Therms	kWh	kgal	\$	\$	\$	Years		\$	Years
No/Low Cost Recommendations												
1	Install Low Flow Faucet Aerators	\$170	0	4,538	33	\$1,643	\$0	\$1,643	0.10	82.60	\$13,844	10.00
	Location: 100% Of Restrooms											
2	Replace Existing Refrigerator(s) With Energy Star Certified Refrigerator(s)	\$940	0	652	0	\$59	\$0	\$59	16.02	0.75	-\$239	15.00
	Location: Curran Building - 3Rd Floor Conference Room											
Totals for No/Low Cost Items		\$1,110	0	5,190	33	\$1,702	\$0	\$1,702	0.65			
Capital Cost Recommendations												
1	Reduce HVAC Hours of Operation	\$1,355	2,219	20,519	0	\$1,291	\$0	\$1,291	0.19	84.21	\$85,680	15.00
	Location: Re-Introduce Setback Control											
2	Re-Commission The Building & Its Control Systems	\$12,176	3,602	14,732	0	\$10,162	\$0	\$10,162	1.20	9.96	\$109,142	15.00
	Location: Re-Program The Vav Boxes, Outside Air Intake											
3	Upgrade Building Lighting to LED and Install Automatic Lighting Controls	\$21,885	0	49,019	0	\$6,382	\$0	\$6,382	3.43	3.48	\$54,301	15.00
	Location: Building Interior And Exterior - Curran Building											
4	Control External Air Leakage In Commercial Buildings	\$5,314	404	683	0	\$1,106	\$0	\$1,106	4.80	2.48	\$7,890	15.00
	Location: Air Seal 78 External Windows, Attic Hatch And Exterior Doors											

82.60

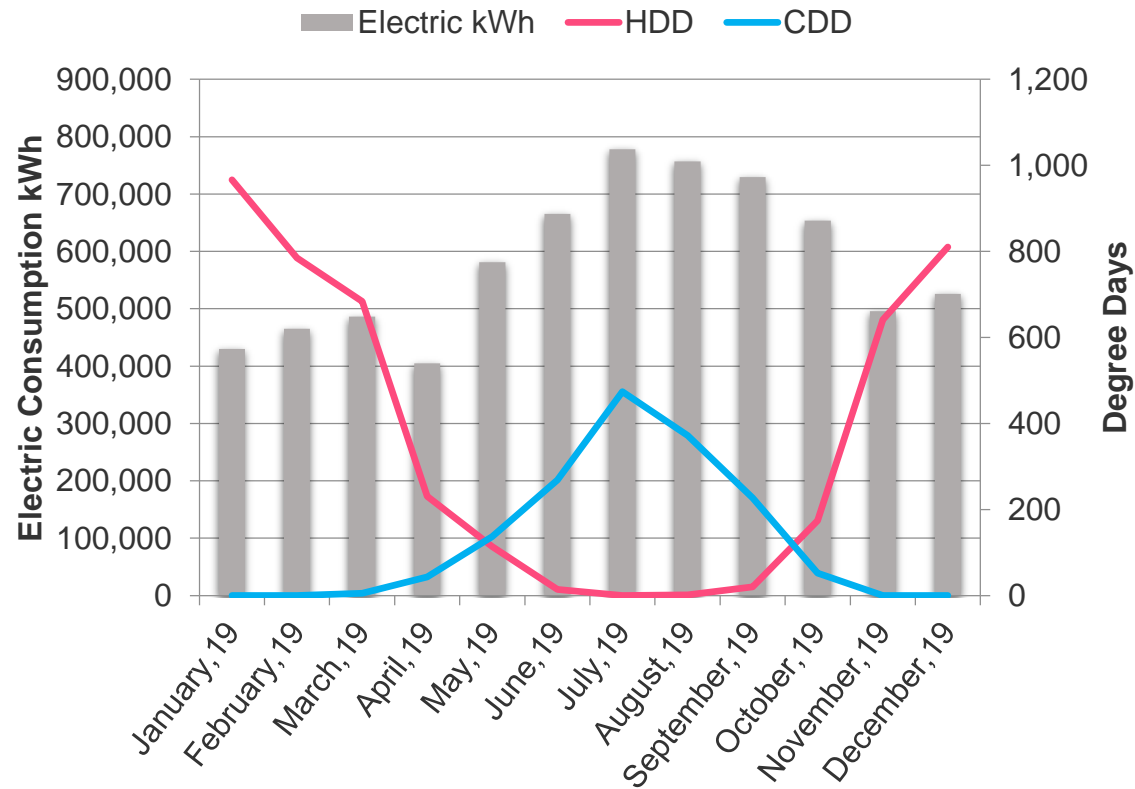
0.75



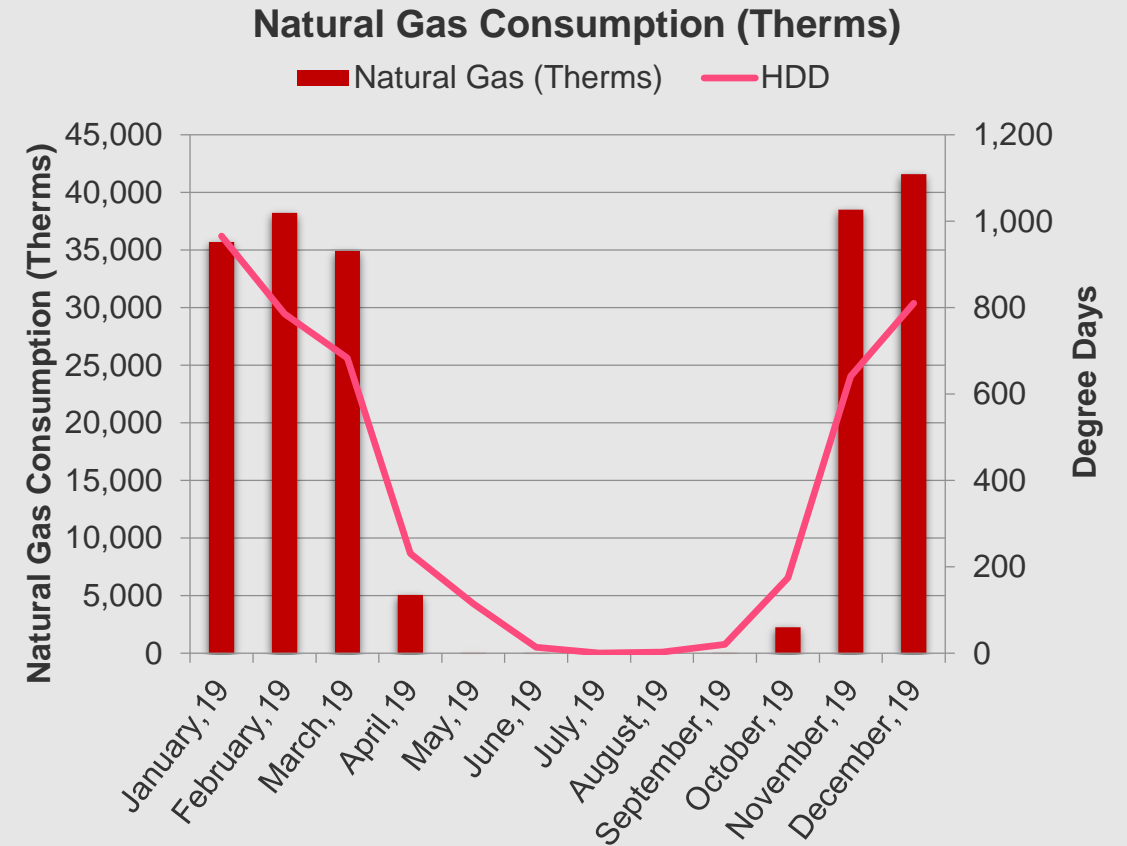
03

ENERGY & WATER CONSERVATION MEASURES

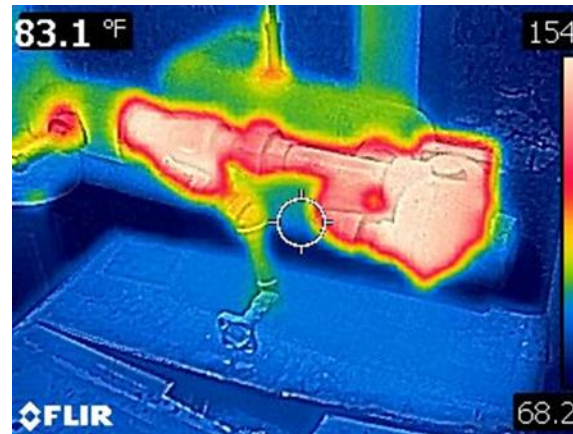
COURTHOUSE COMPLEX – ELECTRIC CONSUMPTION FROM GRID



Courthouse Complex Natural Gas Consumption



TECHNICAL SITE VISIT

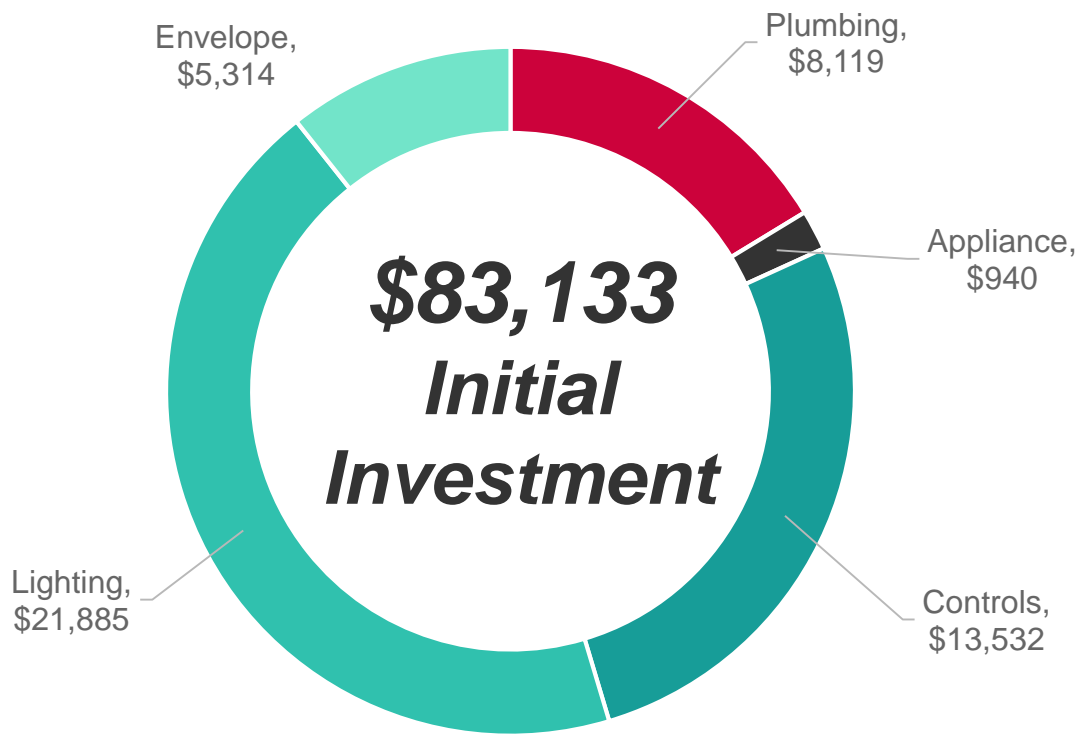


MECHANICAL INVENTORY

Mechanical Inventory - Thomas Curran Building						
Equipment Location	Equipment	Capacity	Quantity	Make	Model	Serial
Elevator	Passenger Elevator	4000 LB	1	Illegible	Illegible	Illegible
Mechanical room B14	Pump	1 HP	1	Bell & Gossett	JVB 56T17D5598D	
Mechanical room B14	Water Heater	80 GAL	1	Bradford White	M280R6DS-1NCWW	HH15370102
Mechanical room B14	Pump	3 HP	1	Illegible	Illegible	Illegible
Mechanical room B14	Heat Exchanger	20 GPM	1	Inaccessible	Inaccessible	Inaccessible
Roof	Split System Ductless	2 TON	1	Mitsubishi Electric	PU24EK	Inaccessible
Throughout building	Unit Ventilator	500 CFM	3	Solid State		
Mechanical room B14	Air Handler	11200 CFM	1	Snyder General	LSL128DH	
Mechanical Room 2nd Floor	Air Handler	2400 CFM	1	Snyder General	LSL106CH	3ZD01065-06
Mechanical Room 2nd Floor	Air Handler	1200 CFM	1	Snyder General	LSL103CV	3ZD01066-06
Mechanical Room 1st Floor	Air Handler	1200 CFM	1	Snyder General	LSL103CV	3ZD00760-06
Mechanical room B14	Air Handler	1600 CFM	1	Snyder General	LSL104CV	3ZD01067-06
2nd Floor Ceiling	Air Handler	1200 CFM	1	Inaccessible	Inaccessible	Inaccessible
Throughout building	Variable Air Volume Unit	100 CFM	22			
Roof	Exhaust Fan	300 CFM	1	Inaccessible	Inaccessible	Inaccessible
Mechanical room B14	Variable Frequency Drive	15 HP	1	Safetronics	CIMR-P5U2011	
Mechanical Room 2nd Floor	Variable Frequency Drive	3 HP	1	Safetronics	CIMR-P5U22P2	

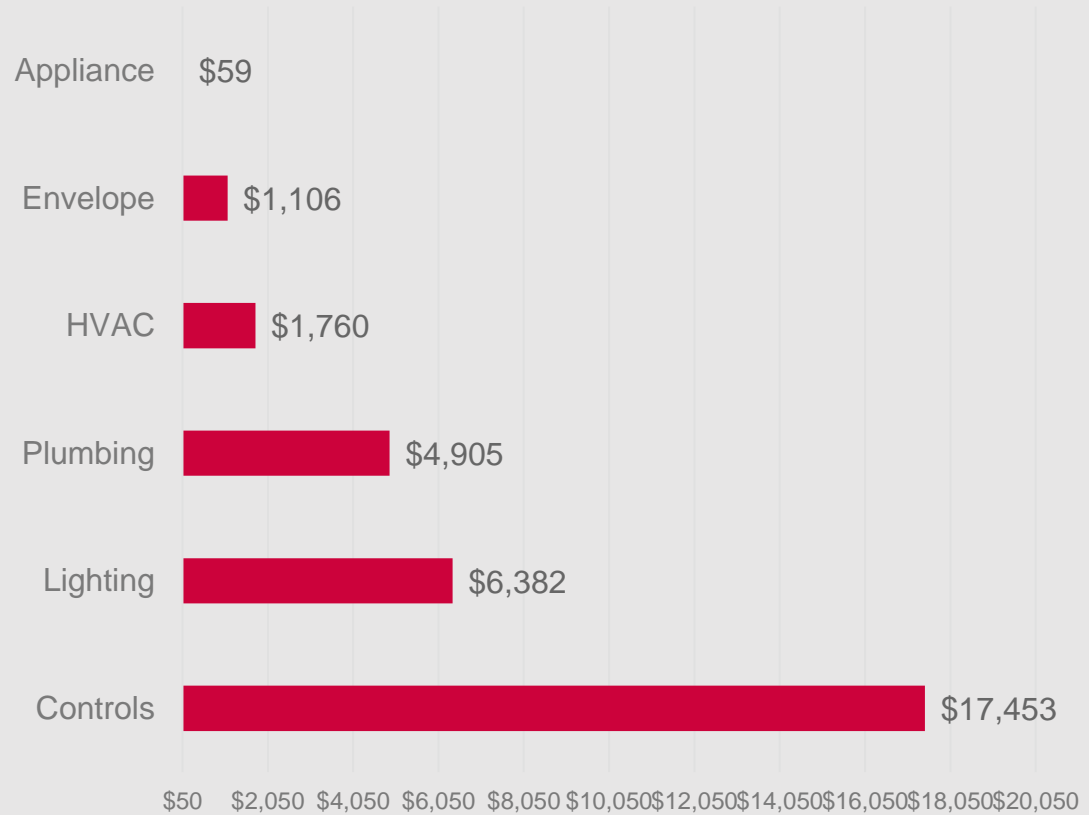
ENERGY CONSERVATION MEASURES

Projected Initial Investment



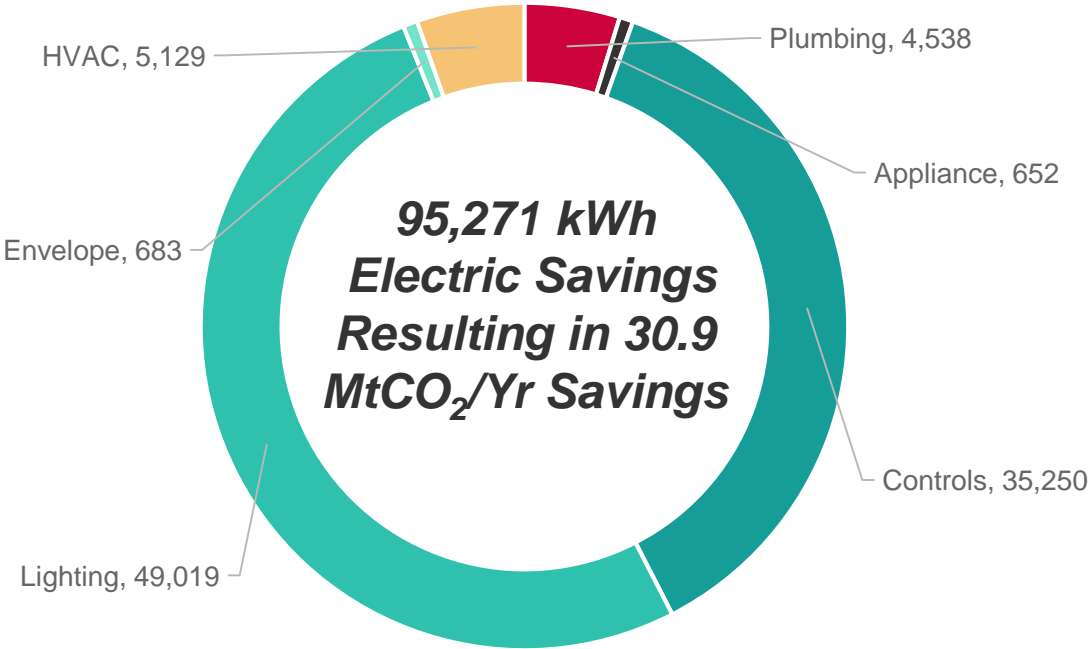
ENERGY & WATER SAVINGS MEASURES DISTRIBUTION

Estimated Annual Cost Savings (Utility + O&M)



ELECTRIC SAVINGS MEASURES

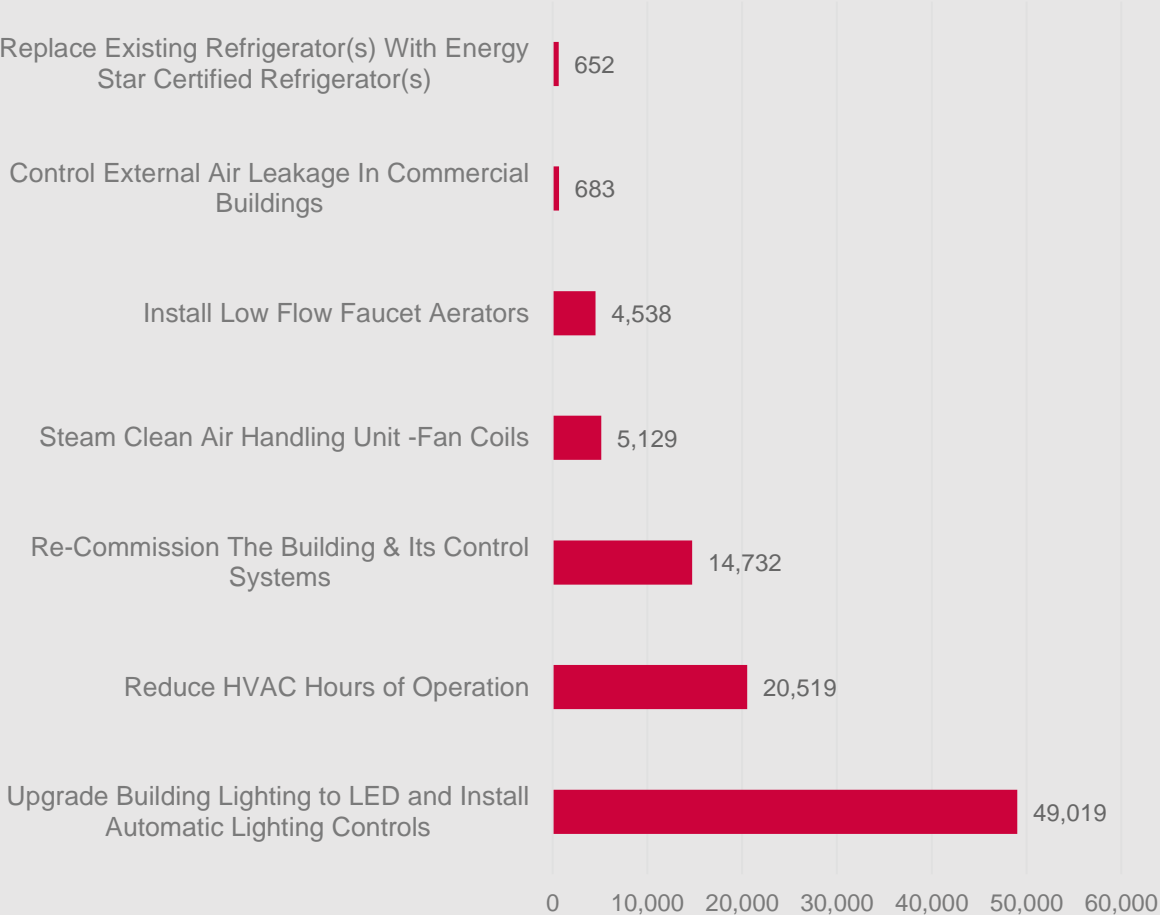
Electricity Savings (kWh)



Plumbing Savings: Indirect savings through decrease in use of hot water via using low flow plumbing fixtures.

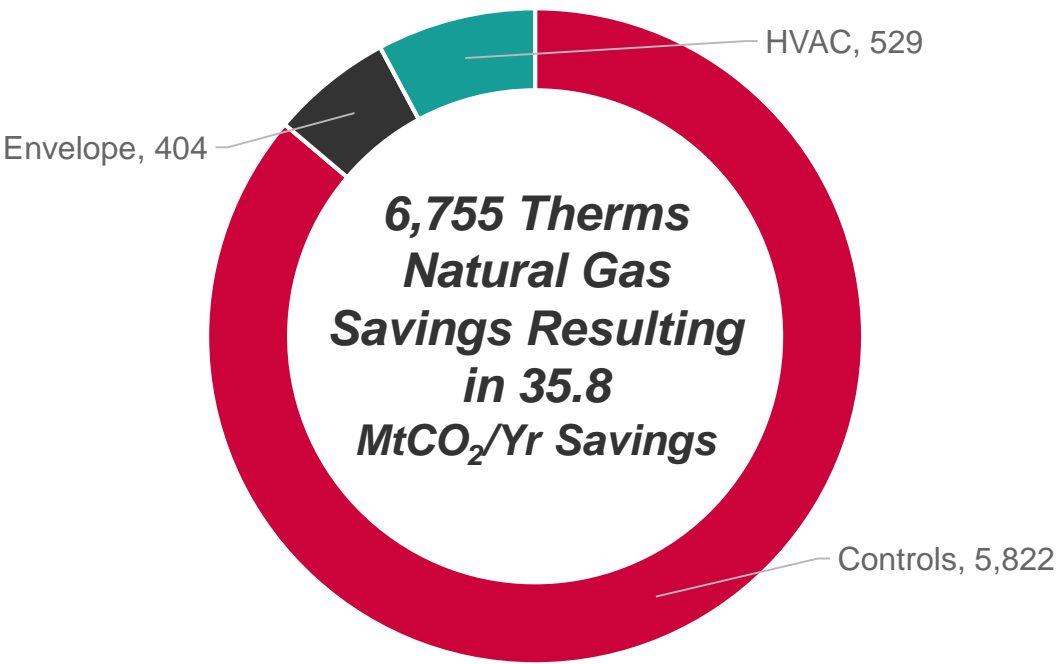
MEASURES WITH ELECTRIC SAVINGS

Electricity Savings (kWh)



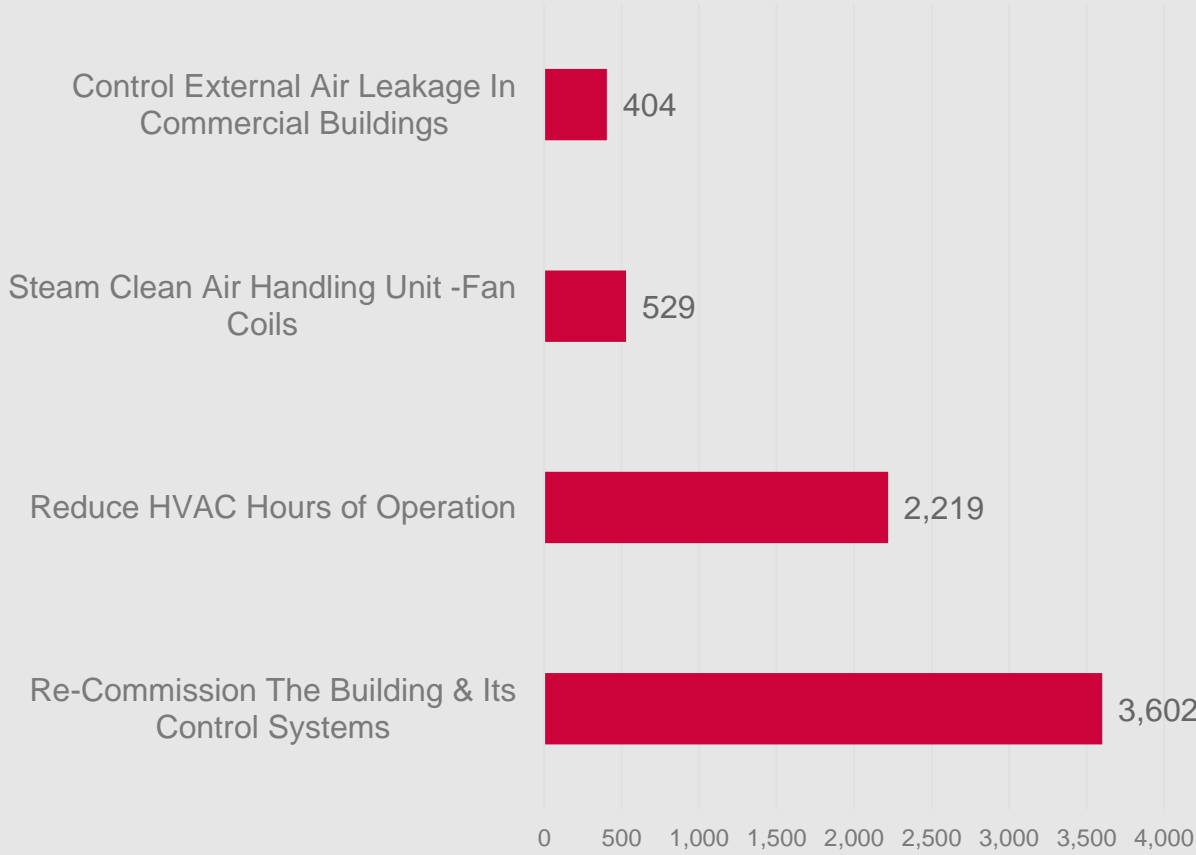
NATURAL GAS SAVINGS MEASURES

Natural Gas Savings (Therms)



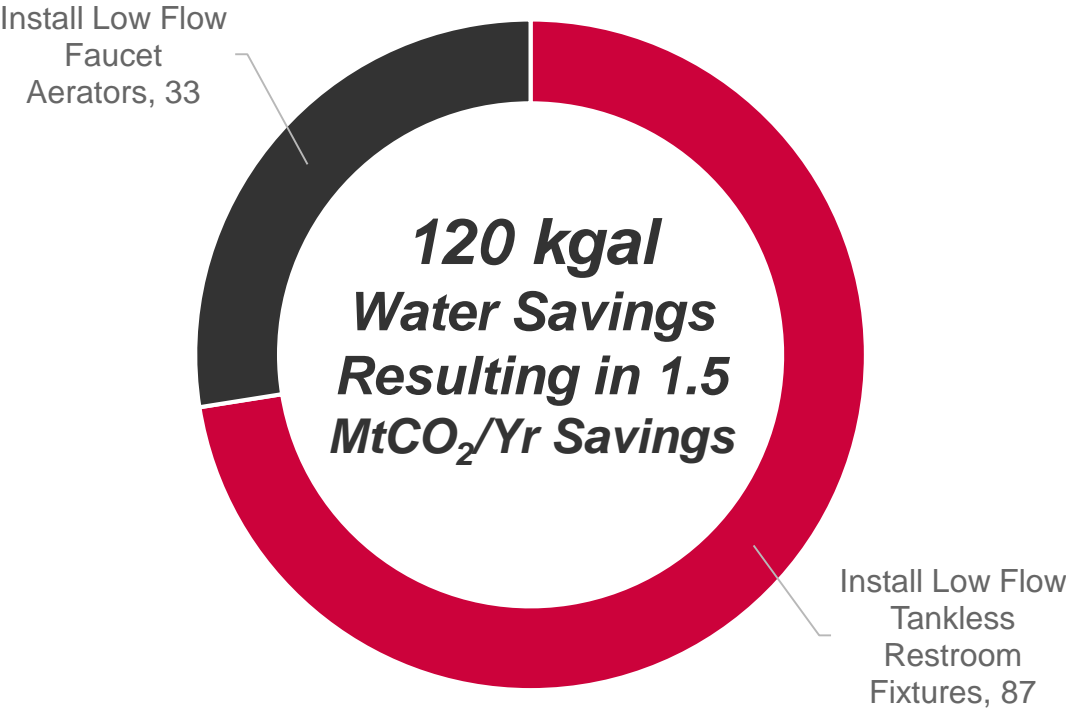
MEASURES WITH NATURAL GAS SAVINGS

Natural Gas Savings (Therms)



WATER SAVINGS MEASURES

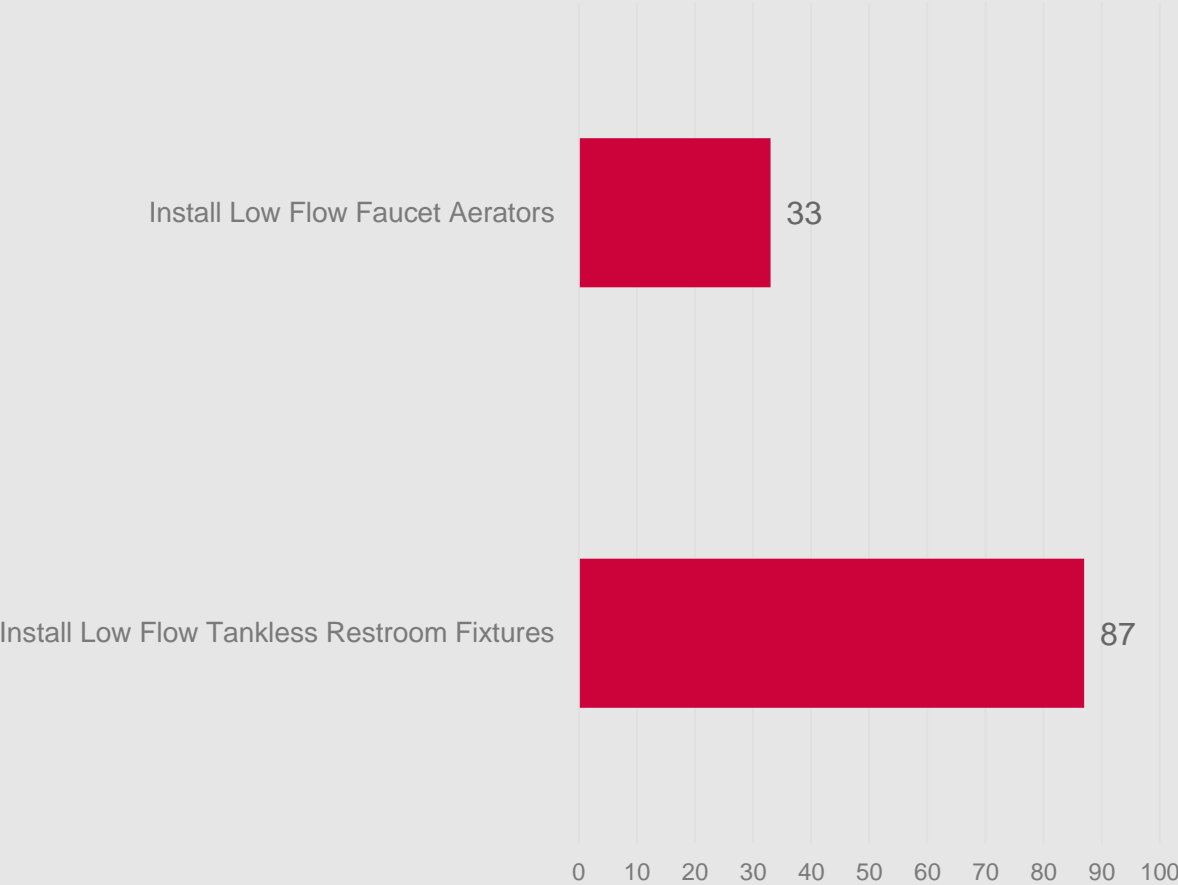
Estimated Annual Water Savings (kGal)



Plumbing Savings: Indirect savings through decrease in use of hot water via using low flow plumbing fixtures.

MEASURES WITH WATER SAVINGS

Estimated Annual Water Savings (kGal)





04

CONCLUSION

CONCLUSION



- Project initial investment : **\$83,133**
- Estimated annual utility and O&M cost savings: **\$28,498**
- Estimated annual energy savings: **901MMBTU**
- Projected total CO₂ emissions reduction: **60.07 MtCO₂/Yr**
- Equivalent cars taken off the road: **13 cars**
- Equivalent Acres of Pine Trees Planted: **14 Acres**



Questions?

Solarize Delco: Peter Puglionesi



Solarize Your Home or Business

Solar Made Easy(ier)

✓Fight Global Warming, ✓Return on Investment, ✓Tax Incentives, ✓Higher Home Values & ✓Group Purchasing

Tavas



Haverford Township

Environmental Advisory Committee



**SIERRA
CLUB**



WHAT IS SOLARIZE?



*A National Framework for Facilitating
Solar PV installation developed by DOE
for Crowdsourcing Solar*



Solarize SE Pennsylvania

GOALS and BENEFITS



- Create a sustainable future*
- Facilitate a major decision*
- Vetted contractors, lower cost project*



About Solarize Delco

Taking Change into Our Own Hands



Tavas



SIERRA
CLUB

Neighbors helping neighbors to ensure a clean energy future!



Haverford Township

Environmental Advisory Committee



- Volunteers from various local organizations
- Industry experience
- Research, scrutinize, selection, and coordination
- Lower the hurdles preventing some from going solar

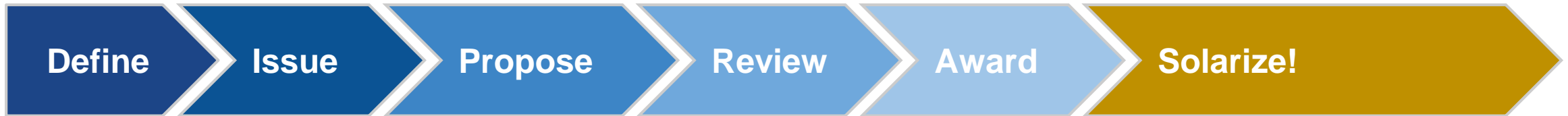


SOLARIZE

Our Process!



Issue RFP, Select Contractor, Find neighbors that want to go solar, CONNECT!



- Bulk purchase lowers responsible contractor costs, passed on to us
- Grassroots education and assessment at the local level to match interest and viability at each location – avoids a lot of contractor marketing cost
- Installer meets with homeowner (currently virtual) to help make final financing and system design decisions

Prices - 2.40 - 3.15 per watt with discounts (based on your system size, panel output, total # built/year)



WHAT IS SOLARIZE?

It's better to buy in bulk!



Solarize is a way for an entire community to save money on solar by **motivating** everyone in the neighborhood to **put panels on their rooftops**.

> Base Cost for Solarize Delco is 8-10% below “market”; -\$250 for 10 “early in”

# OF CUSTOMERS		Addl. \$/kW	% further Cost Reduction*
	20	-\$0.05	-1.4-2.0%
	30	-\$0.10	-2.8-4.0%
	40	-\$0.15	-4.1-5.9%
	...100	-\$0.25	-6.7-9.4%

*Additional discount based on # of Delco installations each year – rebate check issued at end of year. Range due to different cost for small, med. & large systems and low vs. high output panels



THE PROCESS

What roles are assumed by whom?

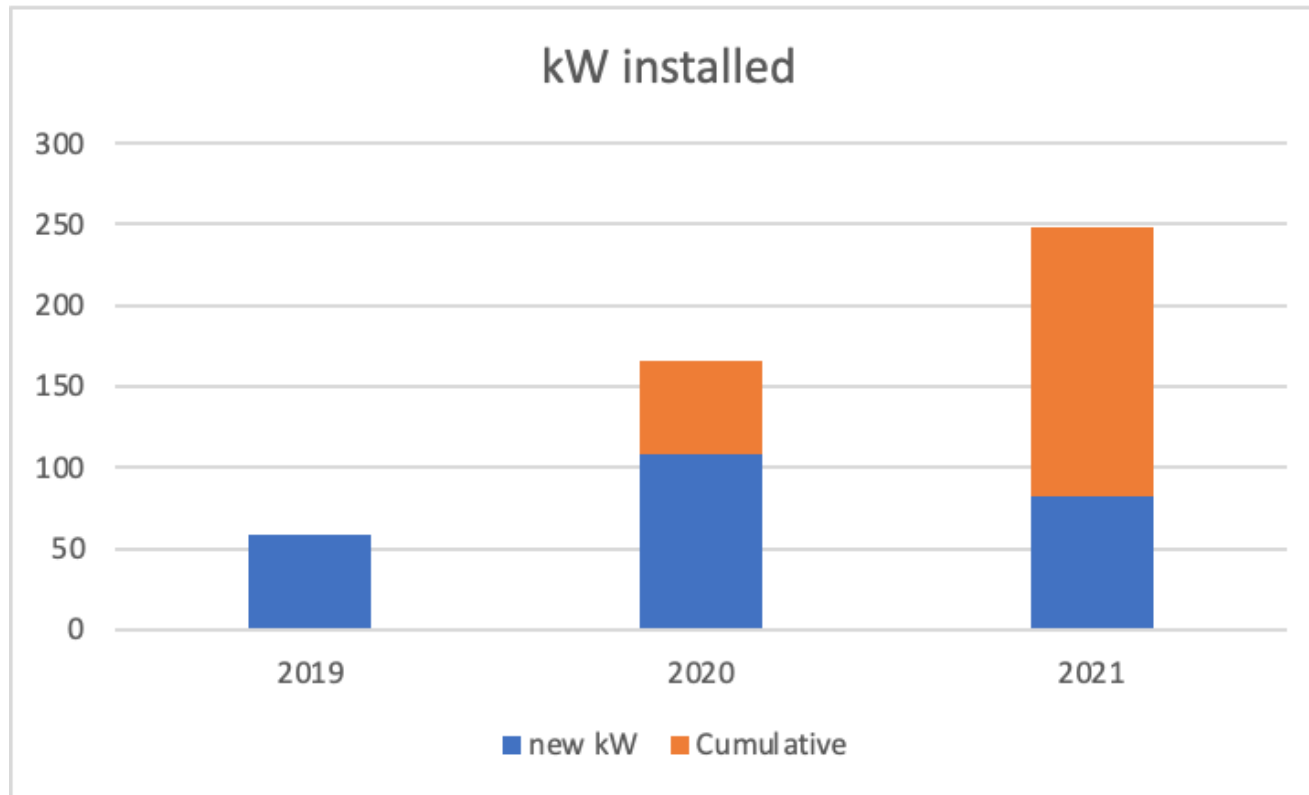


- **Solarize:** We do initial assessment, solar potential, compare to current usage, connect you with the vetted participating installer
- **Installer:** evaluates roof & provides formal proposal
- **Homeowners:** decisions on cash/loan, options
- **Installer:** grid interconnection, permits, installs, schedules inspection
- **Solarize:** monitor progress - PECO/installer & facilitate as needed
- **Homeowner:** start getting electricity from the sun! Gets further discount determined by number of contracts signed



SOLARIZE IN DelCo

It's beginning to gain momentum



Property owner generated capacity through Solarize DelCo:

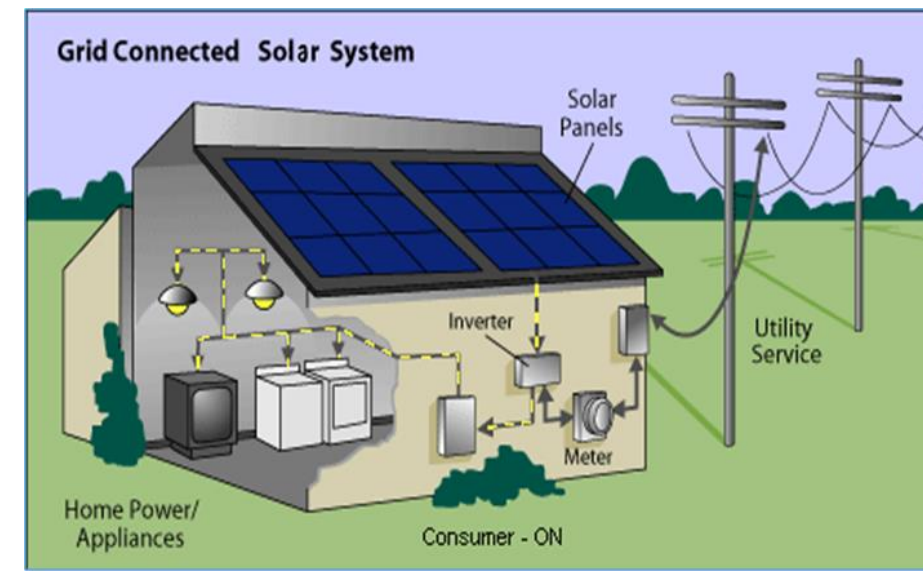
1. 26 Installs, 248 kW
2. Most reside in Haverford Township

Help us get DelCo - Wide!



Benefits to Homeowners / Small Businesses

- Saves money over time, great return on investment
- Reduce environmental impact
- Increase property value (up to 4%); one of a few “improvements” adding 100% + of cost to home value if you must move
- May extend roof life; keeps attic cooler, reducing cooling needs
- Panels have a 30 year Life Expectancy
- No maintenance required
- Business depreciates investment



Easy to Get Help



- Learn more at <https://solarizedelco.org/> & either setup a call or grab electric bill and do a questionnaire online
- OR, Email your Address, Owner Name, Email, Phone contact information – then respond to our emails
- Delco email: solarizedelco@gmail.com
- **Non-profit funding option:** The Clean Energy Coop
CleanEnergyCoopSEPA@gmail.com



Cannot Do Rooftop Solar? No Problem!

Other Ways To Fight Climate Change

Buy Renewable: <https://www.youtube.com/channel/UCwISP41eRhD0SUyHxGpY9xQ> or just go to www.makebenproud.com. For help, email havswitch@gmail.com - “Buying Renewable”.

More Videos at <https://www.youtube.com/channel/UCwISP41eRhD0SUyHxGpY9xQ>

Workshops on EVs, Food Choices, Solarizing Houses of Worship, and Divesting

Educate your Neighbors! Get a Solar Home, EV or Buy Renewable Power motivational lawn sign. E-mail havswitch@gmail.com with name, address and phone number and the subject: I want a {*Solar, EV and/or Buying Renewable Power*} lawn sign – and tell us which sign.



Drive on Wind & Sun!

Ask us how we did it!
havswitch@gmail.com

- ✓ Lower Cost of Ownership
- ✓ Plug into 110V or 230V outlet
- ✓ No Greenhouse Gases when using Wind or Solar Power
- ✓ Almost Zero Maintenance
- ✓ No Stops at Gas Stations

Act While You Can Still Get Tax Credits! Cut the Carbon Cord!

HCAN and local EACs provide education, assessment & advice to ease the process!
E-mail us at: havswitch@gmail.com or go to: <https://www.facebook.com/FriendsofHaverfordEAC>

Solarize DelCo Challenges



- We are not reaching all of DelCo
- All local volunteers, no “PR machine” means that most installs so far were in Haverford, where the current volunteers live
- Growth to “all DelCo” and higher volume will need more volunteers or more resources or this could become a bottleneck
- Permit processing ease and timing varies per township
- PECO connectivity



Help Us Help You to Meet DelCo's Goals



- Solarize DelCo is a tool to help you meet the Sustainability Commission goals for Delaware County non-Gov't. sectors
- Use County channels and help communicate about the program (e.g., sustainability website, coordinate with C-PACE comms)
- Introduction to all DelCo EACs
- Coordinate with us on special events
- Possible future collaboration/coordination on low-income accessibility programs to further leverage buying power



Questions?

Check for Public Comment:

GoGreenDelco@co.delaware.pa.us



Other Business/Announcements



Public Comment: GoGreenDelco@co.delaware.pa.us

Next Meeting

June 17 at 6:00pm



Public Comment: GoGreenDelco@co.delaware.pa.us